THE GLOBE AND MAIL

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Lead scientist for Oxford-AstraZeneca COVID-19 vaccine says one-dose strategy is working in U.K.

PAUL WALDIE EUROPE CORRESPONDENT
LONDON
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A nurse administers the Oxford-AstraZeneca COVID-19 vaccine to a member of the medical staff in La Baule, France, February 17, 2021.

STEPHANE MAHE/REUTERS

The scientist who led the development of the Oxford-AstraZeneca vaccine says Britain was right to extend the interval between doses because the vaccine has been working so well.

Britain was among the first countries to approve a 12-week interval between jabs, instead of the recommended four-week interval, in order to make better use of limited supplies and immunize as many people as possible. Several other governments have followed suit.

“We can be confident that this is absolutely the right strategy to use for this vaccine,” said Sarah Gilbert, a professor of vaccinology at the University of Oxford.

Dr. Gilbert told the British House of Commons science and technology committee Wednesday that test results showed the vaccine was 76 per cent effective within 12 weeks of the first dose. She added that, during clinical trials with volunteers, its efficacy increased to 84 per cent with a three-month interval between doses, compared with 66 per cent with a four-week interval.

Britain began immunizing people against COVID-19 last December, and so far more than a quarter of the population has received at least one shot. A recent study of more than one million vaccinated people in Scotland found that the Oxford-AstraZeneca vaccine reduced hospitalizations by as much as 94 per cent within four weeks of a single dose.

Extending the interval between doses has been controversial, with many scientists expressing concern that it could dilute the effectiveness of vaccines.

Health Canada has yet to approve the Oxford-AstraZeneca vaccine and has recommended that public-health officials stick closely to the dosing schedule of the two vaccines it has authorized – a 21-day interval for Pfizer-BioNTech’s and 28 days for Moderna’s. However, the National Advisory Committee on Immunization has said officials could consider a six-week interval if supplies run short.

Several provinces, including Ontario, British Columbia and Alberta, have opted for a 42-day interval, while Quebec has pushed it to 90 days.

Dr. Gilbert said Britain made the right decision given the rapid spread of a new variant of the virus that was first detected in Kent, outside London, last November. “Given the amount of transmission that we did have in the U.K., that was the best way to use the vaccine at the time,” she told the committee.

Philip Dormitzer, the chief scientific officer for viral vaccines at U.S.-based Pfizer, told the committee that he understood why public-health officials extended the interval but added that

his company has to stand by its recommended dosing schedule. “As of today, the robust data that we can really stand behind come from the 21-day data,” he said.

Research by two Canadian scientists – Danuta Skowronski of the British Columbia Centre for Disease Control and Gaston De Serres of the Institut national de santé publique du Québec – found the Pfizer-BioNTech shot was 92.6-per-cent effective after a single dose and that the second shot should be delayed. “With such a highly protective first dose, the benefits derived from a scarce supply of vaccine could be maximized by deferring second doses until all priority group members are offered at least one dose,” they said in a letter submitted last week to the New England Journal of Medicine.

Dr. Dormitzer and Dr. Gilbert also played down concerns that their vaccines and others won’t work against a new variant first detected in South Africa.

Dr. Dormitzer said lab tests showed the Pfizer-BioNTech vaccine was less effective in South Africa but still worked well. “Yes, these mutations can reduce the level of neutralization, but they do not reduce the level of neutralization anywhere near as low as neutralization that was observed at the time that people were protected in the trials.”

Trials of a single-dose vaccine from U.S.-based Johnson & Johnson have also demonstrated only slightly less effectiveness against the South African variant. Figures released Wednesday by the U.S. Food and Drug Administration showed it was 64 per cent effective at stopping moderate to severe cases in South Africa, compared with an overall effectiveness of 66 per cent.

Dr. Gilbert acknowledged that recent tests in South Africa involving 2,000 young volunteers showed the Oxford-AstraZeneca vaccine was not very effective in preventing mild illness. However, it has proven more effective against severe manifestations of the disease. “It’s the protection against the severe disease that’s keeping people out of hospital, and that really has a big impact on the health care systems,” she said.

The large number of COVID-19 infections in some places makes it more likely for new variants of the virus to emerge. Science Reporter Ivan Semeniuk explains how vaccines may not be as effective against these new strains, making it a race to control and track the spread of variants before they become a dangerous new outbreak.

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